HISTORIG AMERIGAN ENGINEERING REGORD

Index to Photographs

Upper Mississippi River Nine-Foot Channel Project. HAER No. MN-23 Lock and Dam Number 5A Winona, Minnesota, vicinity Winona Gounty, Minnesota Buffalo County, Wisconsin Photographs MN-23-1 through MN-23-68 were taken by Glayton B. Fraser. NOT E: photographer, Fraserdesign, August 1987 MN - 23 - 1OVERALL VIEW OF DAM AND LOCKS FROM EAST RIVERBANK, LOOKING SOUTHWEST, DOWNSTREAM MN - 23 - 2OVERALL VIEW OF DAM FROM AUXILIARY LOCK GUIDEWALL, LOOKING EAST. DOWNSTREAM MN - 23 - 3DETAIL VIEW OF DAM, SHOWING ROLLER GATES, GATE PIERS AND DAM BRIDGE, LOOKING EAST, DOWNSTREAM MN-23-4 DETAIL VIEW OF DAM, SHOWING TAINTER GATES, GATE PIERS AND DAM BRIDGE, LOOKING SOUTHWEST, DOWNSTREAM MN-23-5 DETAIL VIEW OF DAM, SHOWING ROLLER GATE, GATE PIER, HEADHOUSE AND DAM BRIDGE, LOOKING SOUTHWEST, DOWNSTREAM MN-23-6 DETAIL VIEW OF DAM, SHOWING ROLLER GATES, GATE PIERS, HEADHOUSES, AND DAM BRIDGE, LOOKING NORTH, UPSTREAM MN - 23 - 7DETAIL VIEW OF DAM, SHOWING TAINTER GATES, GATE PIERS AND DAM BRIDGE, WITH ROLLER GATE HEADHOUSES AND LOGKS IN BAGKGROUND, LOOKING WEST, UPSTREAM MN-23-8 DETAIL VIEW OF DAM, SHOWING ROLLER GATES, GATE PIERS AND HEADHOUSES, LOOKING NORTHEAST, UPSTREAM MN - 23 - 9DETAIL VIEW OF HEADHOUSE/PIER, SHOWING ROLLER GATE IN LOWERED POSITION, LOOKING SOUTHWEST DETAIL VIEW OF HEADHOUSE/PIER, SHOWING ROLLER GATE IN RAISED

VIEW OF DAM BRIDGE, SHOWING ROLLER GATE HEADHOUSES, LOOKING

MN - 23 - 10

MN-23-11

POSITION, LOOKING SOUTHWEST

SOUTHWEST

Upper Mississippi River Nine-Foot Channel Project, Lock and Dam Number 5A HAER No. MN-23 Index to Photographs (Page 2)

- MN-23-12 DETAIL VIEW OF HEADHOUSE/PIER, SHOWING ROLLER GATE, ROLLER TRACK AND GATE CHAIN, LOOKING SOUTHWEST
- MN-23-13 DETAIL VIEW OF ROLLER GATE IN RAISED POSITION, SHOWING GATE FLANGE AND SHAFT, LOOKING SOUTHWEST
- MN-23-14 DETAIL VIEW OF ROLLER GATE IN LOWERED POSITION, SHOWING GATE FLANGE AND SHAFT AND ROLLER TRACK, LOOKING SOUTHWEST
- MN-23-15 INTERIOR VIEW OF HEADHOUSE, SHOWING ROLLER GATE LIFTING MACHINERY, LOOKING NORTHWEST
- MN-23-16 INTERIOR VIEW OF HEADHOUSE, SHOWING ROLLER GATE LIFTING MACHINERY, LOOKING SOUTHEAST
- MN-23-17 INTERIOR VIEW OF HEADHOUSE, SHOWING ROLLER GATE GAUGE AND WHEEL GEAR, LOOKING EAST
- MN-23-18 DETAIL VIEW OF TAINTER GATE FROM DAM BRIDGE, SHOWING GATES, GATE ARMS, PIERS AND DAM BRIDGE, LOOKING NORTHEAST
- MN-23-19 DETAIL VIEW OF TAINTER GATE, SHOWING GATES, GATE ARMS, PIERS AND DAN BRIDGE, LOOKING WEST
- MN-23-20 DETAIL VIEW OF TAINTER GATE, SHOWING GATE, GATE ARM AND PIER, LOOKING WEST
- MN-23-21 DETAIL VIEW OF TAINTER GATE, SHOWING GATE ARM AND TRUNNION PIN, LOOKING NORTHEAST
- MN-23-22 DETAIL VIEW OF TAINTER GATE, SHOWING GATE GAUGE, LOOKING WEST
- MN-23-23 DETAIL VIEW OF TAINTER GATE, SHOWING TRUNNION PIN, LOOKING SOUTHWEST
- MN-23-24 DETAIL VIEW OF TAINTER GATE, SHOWING GATE PIER, SWITCH AND CHAIN, LOOKING WEST
- MN-23-25 VIEW OF MOVABLE CRANE ON DAM BRIDGE, LOOKING SOUTHWEST
- MN-23-26 VIEW OF STAIR TOWER AT EAST END OF DAM AND STORAGE YARD, LOOKING SOUTHWEST
- MN-23-27 VIEW OF STORAGE YARD, SHOWING DAM BRIDGE, ROLLER GATE BULKHEAD CARS AND TRACKS, LOOKING EAST

Upper Mississippi River Nine-Foot Channel Project, Lock and Dam Number 5A HAER No. MN-23 Index to Photographs (Page 3)

MN-23-28	VIEW OF ROLLER GATE BULKHEADS AND BULKHEAD CARS IN STORAGE YARD BEHIND DAM BRIDGE, LOOKING SOUTHEAST
MN-23-29	VIEW OF ROLLER GATE BULKHEADS IN PLACE ON ROLLER GATE PIER, LOOKING EAST
Mn-23-30	OVERALL VIEW OF EARTH DIKE, LOOKING NORTHEAST
MN-23-31	OVERALL VIEW OF EARTH DIKE, LOOKING SOUTHWEST
MN-23-32	VIEW OF SPILLWAY IN EAST END OF EARTH DIKE, LOOKING NORTHEAST
MN-23-33	OVERALL VIEW OF LOCKS FROM UPSTREAM GUIDEWALL, LOOKING SOUTHEAST, DOWNSTREAM
MN-23-34	INTERIOR VIEW OF MAIN LOCK, WITH CENTRAL CONTROL STATION AT LEFT, LOOKING NORTHWEST, UPSTREAM
Mn-23-35	INTERIOR VIEW OF AUXILIARY LOCK, WITH CENTRAL CONTROL STATION AND DOWNSTREAM GUIDEWALL OF MAIN LOCK IN BACKGROUND, LOOKING SOUTH
Mn-23-36	VIEW OF UPSTREAM GUIDEWALL OF MAIN LOCK, LOOKING NORTHWEST
MN-23-37	VIEW OF UPSTREAM GUIDEWALL OF MAIN LOCK, LOOKING NORTHWEST
MN-23-38	VIEW OF BULKHEAD OF DOWNSTREAM GUIDEWALL OF MAIN LOCK, SHOWING TILE GAUGE, LOOKING EAST
MN-23-39	VIEW OF MAIN LOCK UPSTREAM MITER GATE, WITH DAM IN BACKGROUND, LOOKING EAST
MN-23-40	VIEW OF AUXILIARY LOCK MITER GATE, WITH MAIN LOCK UPSTREAM MITER GATE IN BACKGROUND, LOOKING WEST
MN-23-41	VIEW OF AUXILIARY LOCK MITER GATE MACHINERY WELL, LOOKING WEST
MN-23-42	VIEW OF MAIN LOCK TAINTER VALVE MACHINERY, LOOKING NORTH
MN-23-43	VIEW OF AUXILIARY LOCK TAINTER VALVE MACHINERY WELL, LOOKING NORTH
MN-23-44	VIEW OF MAIN LOCK UPPER WINCH, LOOKING WEST
MN-23-45	VIEW OF MAIN LOCK LOWER WINCH AND WINCH PLATFORM, LOOKING WEST
	THE TAX AS DALM TAX TOTAL PARTY DAME TO DAME T

VIEW OF BOAT LAUNCH, WITH DAM IN BACKGROUND, LOOKING SOUTH

Upper Mississippi River Nine-Foot Channel Project, Lock and Dam Number 5A HAER No. MN-23 Index to Photographs (Page 4)

MN-23-47 VIEW OF STAGE RECORDER AT END OF UPSTREAM GUIDEWALL, LOOKING WEST MN-23-48 VIEW OF STAGE RECORDER AT END OF DOWNSTREAM GUIDEWALL, LOOKING SOUTHEAST MN-23-49 VIEW OF DOWNSTREAM GUIDEWALL, SHOWING LIGHT STANDARD AND DOWNSTREAM ENTRANCE OF MAIN LOCK, LOOKING NORTHWEST MN-23-50 OVERALL VIEW OF ESPLANADE, LOOKING EAST MN-23-51 OVERALL VIEW OF ESPLANADE, LOOKING NORTHWEST MN-23-52 VIEW OF CENTRAL CONTROL STATION, LOOKING EAST MN-23-53 VIEW OF CENTRAL CONTROL STATION, LOOKING NORTH MN-23-54 VIEW OF CENTRAL CONTROL STATION, WITH MAIN LOCK IN FOREGROUND, LOOKING WEST MN-23-55 VIEW OF MEMORIAL PLAQUE ON EAST WALL OF CENTRAL CONTROL STATION, LOOKING WEST MN-23-56 INTERIOR VIEW OF CENTRAL CONTROL STATION, FIRST FLOOR, SHOWING CENTRAL CONTROL PANEL AND GENERATOR MOTOR, LOOKING SOUTH MN-23-57 INTERIOR VIEW OF CENTRAL CONTROL STATION, WITH A DETAIL VIEW OF THE CENTRAL CONTROL PANEL, LOOKING NORTH MN-23-58 INTERIOR VIEW OF CENTRAL CONTROL STATION, WITH A DETAIL VIEW OF THE CENTRAL CONTROL PANEL, LOOKING NORTH MN-23-59 INTERIOR VIEW OF CENTRAL CONTROL STATION, BASEMENT, LOOKING NORTHWEST MN-23-60 VIEW OF LOCKKEEPERS' GARAGE AT EAST END OF DAM, LOOKING EAST MN-23-61 VIEW OF PEDESTRIAN OVERPASS UNDER RAILROAD TRACKS AT EAST END OF DAM, LOOKING EAST VIEW OF PEDESTRIAN UNDERPASS UNDER RAILROAD TRACKS AT EAST END OF MN-23-61 DAM. LOOKING EAST

VIEW OF LOCKKEEPER'S HOUSE I, WITH LOCKKEEPER'S HOUSE II IN

BACKGROUND (BOTH REMOVED FROM ESPLANADE), LOOKING NORTHWEST

MN-23-62

Upper Mississippi River Nine-Foot Channel Project, Lock and Dam Number 5A HAER No. MN-23 Index to Photographs (Page 5)

- MN-23-63 VIEW OF LOCKKEEPER'S HOUSE (REMOVED FROM ESPLANADE), LOOKING WEST
- MN-23-64 VIEW OF LOCKKEEPER'S HOUSE (REMOVED FROM ESPLANADE), LOOKING SOUTHWEST
- MN-23-65 VIEW OF LOCKKEEPER'S HOUSE I (REMOVED FROM ESPLANADE), LOOKING NORTHEAST
- MN-23-66 VIEW OF LOCKKEEPER'S HOUSE II (REMOVED FROM ESPLANADE), LOOKING SOUTHWEST
- MN-23-67 VIEW OF LOCKKEEPER'S HOUSE II (REMOVED FROM ESPLANADE), LOOKING NORTHEAST
- MN-23-68 VIEW OF LOCKKEEPER'S HOUSE II (REMOVED FROM ESPLANADE), LOOKING NORTHWEST
- The following are photocopies of photographs, courtesy of the U.S. Engineer Office, St. Paul, Minnesota. Original prints are located at Mississippi River Lock and Dam Number 5A.
- MN-23-69 VIEW OF PILE DRIVING COMPLETE IN LOWER GUIDEWALL.
 Taken September 4, 1934
- MN-23=70 GENERAL VIEW, LOOKING UPSTREAM. Taken September 18, 1934
- MN-23-71 GENERAL VIEW. Taken November 2, 1935
- MN-23-72 VIEW OF DOWNSTREAM AREA OF COFFERDAM PRIOR TO FLOODING.
 Taken January 17, 1936
- MN-23-73 VIEW OF CONCRETE PLANT SET UP FOR PLACING OPERATING HOUSES.
 Taken April 21, 1936
- MN-23-74 GENERAL VIEW. Taken June 15, 1937
- MN-23-75 AERIAL VIEW. Date unknown.

The following are photocopies of original construction drawings. Original prints are in the possession of the U. S. Army Corps of Engineers, St. Paul District, St. Paul, Minnesota. The photographer is unknown.

- MN-23-76 LOCK INDEX (ML-5A-O/1-FS)
- MN-23-77 DAM INDEX (ML-5A-0/2-FS)

Upper Mississippi River Nine-Foot Channel Project, Lock and Dam Number 5A HAER No. MN-23 Index to Photographs (Page 6)

- MN-23-78 DAM SITE MAP (ML-5A-10/5-FS)
- MN-23-79 LOCK GENERAL PLAN (ML-5A-20/1-FS)
- MN-23-80 UPPER GUIDEWALL EXTENSION GENERAL PLANS AND DETAILS (ML-5A-20/28)
- MN-23-81 LOCK ELECTRICAL SYSTEM LOCK & NAVIGATION LIGHTING UNITS (ML-5A-29/28-FS)
- MN-23-82 LOCK ELECTRICAL SYSTEM TOWING EQUIPMENT ELECTRICAL DETAILS & LOCATION (ML-5A-33/1-FS)
- MN-23-83 LOCK TOWING ENGINES PULL BOX ELECTRICAL EQUIPMENT CHANGE (ML-5A, 6, 7, 8-33/1A)
- MN-23-84 LOCK ELECTRICAL SYSTEM TOWING EQUIPMENT CABLE GUIDES FOR HAULAGE UNITS (ML-5A-33/2-FS)
- MN-23-85 LOCK ELECTRICAL SYSTEM TOWING EQUIPMENT TOWING ENGINE ASSEMBLY (ML-5A-33/3-FS)
- MN-23-86 ESPLANADE UTILITIES WISCONSIN SIDE GENERAL PLAN (ML-5A-38/1-FS)
- MN-23-87 ESPLANADE SITE MAP (ML-5A-38/11-FS)
- MN-23-88 ESPLANADE GENERAL PLAN (ML-5A-38/12-FS)
- MN-23-89 DAM GENERAL PLAN MOVABLE DAM (ML-5A-40/1-FS)
- MN-23-90 DAM STEEL PILING LAYOUT (ML-5A-40/4-FS)
- MN-23-91 DAM PILE SPACING PIER 4 TO PIER 9 INCLUSIVE (ML-5A-40/8-FS)
- MN-23-92 DAM FIXED CONCRETE SPILLWAY MASONRY & REINFORCING (ML-5A-40/48-FS)
- MN-23-93 DAM OPERATING HOUSE PLAN & ELEVATIONS (ML-5A-41/1-FS)
- MN-23-94 DAM OPERATING HOUSE WALL SECTION & MISCELLANEOUS DETAILS (ML-5A-41/1-FS)
- MN-23-95 DAM EARTH DIKE PLAN AND PROFILE (ML-5A-52/1-FS)
- MN-23-96 PROJECTION DIKE SECTIONS (ML-5A-52/14)

Upper Mississippi River Nine-Foot Channel Project, Lock and Dam Number 5A HAER No. MN-23 Index to Photographs (Page 7)

MN-23-97 DAM - SERVICE BRIDGE - SPANS OVER PIERS NOS. 5, 6, & 7 (ML-5A-53/3-FS)

MN-23-98 DAM - SERVICE BRIDGE - SPANS OVER ROLLER GATES (ML-5A-53/4-FS)

MN-23-99 DAM - SERVICE BRIDGE - SPANS OVER TAINTER GATES (ML-5A-53/8-FS)

MN-23-100 DAM - SERVICE BRIDGE EXTENSION - GENERAL LAYOUT (ML-5A-53/11-FS)

MN-23-101 DAM - TAINTER GATE OPERATING MACHINERY - MISCELLANEOUS PARTS (ML-5A-55/6-FS)

MN-23-102 DAM - LOCOMOTIVE CRANE TYPE B - GENERAL DRAWING (ML-5A-57/1-FS)

MN-23-103 CENTRAL CONTROL STATION - ELECTRICAL SYSTEM - GENERAL ARRANGEMENT OF EQUIPMENT (ML-5A-71/1-FS)

77-103

NOTE: Negatives are of 5"x7" format.

Negatives #1 through #76 are of 4" x 5" format.